

How to create a reliable supply chain for today's hyper-connected world

Part Two: Boost your margins with accurate, efficient sourcing





Introduction

Over the past few decades, many manufacturers have turned to multi-tiered, globalized supply chains to give them a competitive edge, allowing them to source supplies at the lowest cost and order only as needed. But the supply chain disruptions that resulted from COVID-19 and the chaos that ensued have clearly highlighted some of the issues associated with just-in-time, low-inventory strategies for managing supply.

If you are one of those manufacturers who had to field panicked calls from production supervisors because they were about to start a job and ran out of materials, you're not alone. Plant shutdowns, delays at borders and transportation bottlenecks (think the container ship stuck in the Suez Canal) torpedoed delivery schedules and material shortages became commonplace. Many manufacturers and distributors got a painful reminder of just how little visibility they had into their supply chains.

In Part One of this White Paper series, we discussed some of the issues with forecasting in a fast-moving world and how the powerful forecasting capabilities of an effective Enterprise Resource Planning (ERP) solution can help manufacturers and distributors accurately predict future sales and assess how much inventory is needed to meet demand.

Part Two aims to explore how technology can help you get a handle on your supply chain by streamlining and improving processes; ensuring you have necessary materials and components on hand when you need them; managing multiple suppliers effectively; and ultimately protecting your margins.

Three-part whitepaper series:

Part 1 PLAN



Improve sales planning and optimize inventory

[Read part 1](#)

Part 2 SOURCE



Source accurately and efficiently to improve margins

Part 3 DELIVER



Control order fulfilment and on-time delivery

[Read part 3](#)

MRP: A detangler for complex supply chains

In a nutshell, the Material Requirements Planning (MRP) function of an ERP system can help you plan purchasing and production activities in time to meet customer commitments.

It might help to think of it as a very powerful calculator. Using your purchase orders, sales orders, forecasts and even quotes as a base, it makes sourcing recommendations and generates suggested job schedules with an eye to minimizing inventory and ensuring you have the required materials on hand when needed.

MRP works backward, starting with a production plan for the goods to be delivered, from which it extrapolates a list of requirements for all of the component parts, raw materials and products you need to get your shipment out on time. It takes into account the due date for delivery of the finished product, supplier lead time for materials, manufacturing time (if applicable) and the time it takes for you to get your product shipped out to the customer.

To take a simple example, let's say your company manufactures wheelbarrows. When an order comes in, the MRP function reviews it and produces a bill of materials needed to manufacture the item. Let's assume you need a single wheel, a metal bucket and two handles, and you've promised to have product out to your customers in seven weeks' time. If it takes you a week to distribute the product, you need the necessary components and materials six weeks in advance.

The MRP checks your inventory status to determine whether you have either available inventory or open orders for the parts. If you do, it subtracts those items from the materials and components you still need.

At that point, you could order all of the remaining materials at once, but historical information on your procurement lead times indicate you can expect to wait five weeks to get the wheel in stock, two weeks to get the metal bucket and just one week to receive the handles.

If you place the purchase requisitions for all of the required component parts immediately, you will have metal buckets and handles cluttering up your warehouse for three to four weeks before they're needed.

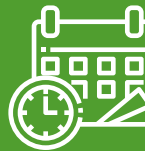
MRP performs the following functions:



Calculates the optimal date to order each part



Suggests suppliers capable of filling the order

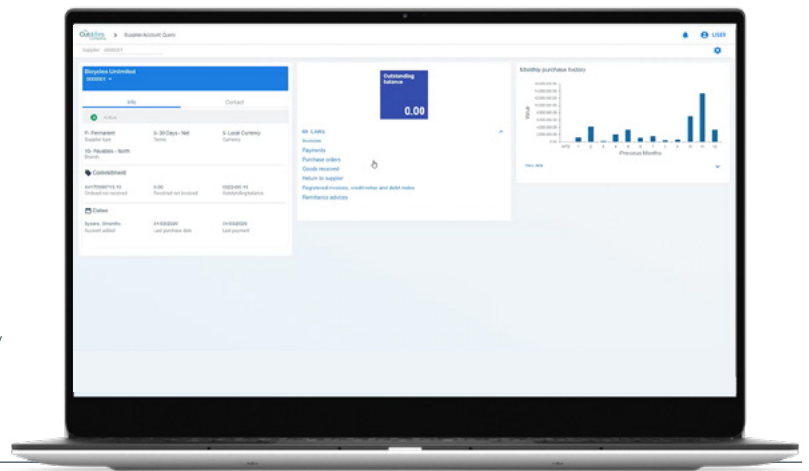


Creates a sample production schedule



Automatically generates suggested purchase orders, work orders and requisitions for your review

Since human beings often bring insights to the table that a machine cannot, it's important to note you can override the MRP function's suggestions. For instance, MRP will provide you with a recommended start date for production, but you may opt for a later date because you know that by consolidating several smaller jobs a few days apart into one larger job, you can reduce line changeovers and increase your throughput and efficiency. Once you have made your decision to override the suggested production date, the MRP function easily calculates the downstream effects of the move, including the new order and delivery dates.





Optimize sourcing strategies with MRP

If you're like many organizations, you strive to walk the line between competing objectives. First, you need to order sufficient supplies and materials to meet production or distribution demand, but not so much that you face high inventory costs. Second, you strive to spread out your purchases to multiple suppliers in an attempt to guard against the risk that a single supplier is not able to deliver on time or at all. But at the same time, you need to ensure you're purchasing enough materials, components or products from each of your suppliers to retain good pricing, better terms and lead times, and guaranteed stock.

Another chief advantage of MRP is its ability to implement sourcing policies that can help your business meet these differing objectives. For example:

- You could opt for a strategic sourcing policy that allocates a set proportion of total spend for materials, products or components to specific suppliers. That way, you can negotiate better pricing and terms.
- Alternatively, you might choose to allocate total spend by volume, allowing you to take full advantage of price breaks for bulk purchases.
- Finally, if you have a burning need to get shipments out fast (or risk your relationship with your customer), you might favour a sourcing model that prioritizes the closest warehouses, even if supplies cost more.

By allowing you to quickly and efficiently set priorities and source accordingly, the strategic planning capabilities of MRP go a long way towards helping you manage your supplier/customer relationships and agreements while leveraging the purchasing power of your entire organization.

Take the pain out of procurement

For many manufacturing and distribution companies, managing procurement is a time-consuming and labour-intensive task. One of the primary benefits of an effective ERP system is its ability to automate the procurement process from start to finish enabling your organization to increase efficiency, save costs and gain better control over your supply line.

Request for Quote optimizing the procurement process

Let's take the RFQ process for starters. For most organizations procurement begins with a Request for Quotes (RFQ) – a procedure that is unwieldy and error prone, relying on countless emails, calls and messages to current and would-be suppliers. Even once bids do begin to roll in, many managers are left trying to compare differing parameters because the quotes lack standardization.

In contrast, an effective ERP system uses technology capable of sending out a standardized RFQ in minutes to both current and potential suppliers. Suppliers can reply directly with bids that include detailed pricing information as well as notes and attachments containing critical information.

Because all of that information is centralized, your procurement department can quickly and accurately assess competing bids to accept or reject them, or to request further information. Once you've settled on a supplier(s), the system automatically creates and sends purchase orders. The result: an accelerated order process and shortened inventory turnaround time.

Shave administration costs with ERP solutions

An effective ERP system can help you shave administration costs as well. For example, it can highlight any price variances between the original bid and the supplier invoice, making it simple to catch discrepancies before you pay the bill. And by sending Electronic Funds Transfers (EFTs) through an ERP system's online portal you may be able to get better discounted terms from your suppliers, as well as eliminate costs for processing and mailing cheques, reducing overhead and speeding up the payment process, potentially allowing you to take advantage of money-saving 'early' or 'on-time' payment terms.









Improved governance

Finally, effective use of ERP improves your organization's governance. You can eliminate a common source of confusion and procurement inaccuracy by cross-referencing your internal part numbers with those used by your suppliers on both purchase orders and receipts.

And because you're able to follow the customer order from quote until shipment, you can easily ensure any sourcing specifications have been met (for instance, if you have a military or aerospace client who stipulates you can only deal with approved suppliers).

The MRP and procurement capabilities of an effective Enterprise Resource Planning system can help you:

 <p>Optimize demand planning</p>	 <p>Accurately source materials</p>	 <p>Get materials and supplies when you need them</p>	 <p>Take advantage of preferential pricing</p>	 <p>Build better relationships with both suppliers and buyers</p>	 <p>Reduce procurement costs and increase efficiency</p>
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The end result: you're able to develop a more resilient and predictable supply chain.

About SYSPRO

SYSPRO is a leading, global Enterprise Resource Planning (ERP) software provider specializing in key manufacturing and distribution industries. For over 40 years, SYSPRO's team of specialists have continued to address unique industry needs and enable customers to easily adapt and grow. The solution is scalable and can be deployed in the cloud, on-premise, or both, and accessed via the web on any device to provide customers with choice and flexibility.

SYSPRO remains focused on the success of partners and customers. Our evolving solutions are aligned with industry trends to leverage emerging technology that will enable partners and customers in securing a digital future.

With more than 15,000 licensed companies in over 60 countries across six continents, SYSPRO offers guidance and support every step of the way as a trusted advisor.

For more information, visit [syspro.com](https://www.syspro.com)

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Three-part whitepaper series.

Parts [1](#) and [2](#) of this whitepaper dealt with the question of how an effective ERP system can help you accurately predict future sales and assess inventory demand, as well as streamline your supply chain and protect your margins, even as you juggle multiple suppliers. To find out how an effective ERP system can help you streamline order fulfillment and optimize your fleet capacity, turn to [Part 3](#).





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